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Baker Botts L.L.P. 910 Louisiana Street, One Shell Plaza HOUSTON, TX 77002				
EXAMINER				
MOORE JR, MICHAEL J				
ART UNIT		PAPER NUMBER		
2467				
NOTIFICATION DATE		DELIVERY MODE		
07/14/2011		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/679,130

**Applicant(s)**

SULTENFUSS ET AL.

**Examiner**

MICHAEL J. MOORE, JR.

**Art Unit**

2467

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 May 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 19 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-040)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

Current amendments made by Applicant to claims **10, 12, and 14** to obviate the claim objections presented in the previous Office Action are proper and have been entered. These objections have been withdrawn.

### ***Claim Rejections - 35 USC § 112***

Current amendments made by Applicant to claim **14** to obviate the claim rejection under 35 U.S.C. § 112, 2<sup>nd</sup> paragraph presented in the previous Office Action are proper and have been entered. This particular rejection has been withdrawn.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims **1-15, 19, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinson (U.S. 6,920,185) in view of Willer (U.S. 6,393,109) and Jiang et al. (U.S. 7,058,172) (hereinafter "Jiang").

Regarding claims **1, 9, and 19**, *Hinson* teaches a packet switching router 203 (information handling system) of Figures 3 and 4 that includes a data processing engine 405 (processor), a memory 408, a switch interface 409 (transceiver), a switch 303 (communication switch) coupled to CIMs 305 via transmission lines and switch interfaces 409 (transceivers), as well as NIMs 301 (communication ports) coupled to switch 303 (communication switch) that provide a connection between the packet switched router 203 (information handling system) and different external communication networks via links 104, 214 as spoken of on column 11, lines 45-57.

*Hinson* also teaches CIMs 305 (port replicator connector) of Figures 3 and 4 that are coupled to the switch 303 via transmission lines and provide a connection between the packet switched router 203 (information handling system) and downstream network connections (external network connection) as spoken of on column 12, lines 9-25.

*Hinson* does not teach "a plurality of inductive devices operably coupled to a plurality of board-mounted transmission lines, the inductive devices selected and coupled to the board-mounted transmission lines ... such that one or more electrical characteristics of selected board-mounted transmission lines may be tuned to substantially approximate one or more electrical characteristics required by a communication protocol on the external network".

However, *Willer* teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

*Hinson* in view of *Willer* do not explicitly teach where the inductive devices are selected and coupled in order to "offset at least one electrical characteristic of the communication switch".

However, *Jiang* teaches the use of impedance matching circuits to reduce or prevent the reflection of signals (electrical characteristic) on transmission lines received from an Ethernet switch via Ethernet interfaces as spoken of on column 3, lines 43-60.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to apply the impedance matching of Ethernet communication as taught in *Jiang* to the system of *Hinson* via the use of inductive devices as taught in *Willer* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

Regarding claims **2 and 10**, *Willer* teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

Regarding claims **3, 11, and 12**, *Willer* teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.

*Willer* further teaches inductive devices used on bidirectional transmission lines between terminals 30 and end equipment 14 as shown in Figure 3.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

Regarding claims **4 and 5**, *Willer* teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

Regarding claim **6**, *Hinson* also teaches CIMs 305 (port replicators) of Figures 3 and 4 that are coupled to the switch 303 via transmission lines and provide a connection between the packet switched router 203 (information handling system) and downstream network connections (external network connection) as spoken of on column 12, lines 9-25.

*Hinson* further teaches where the CIMs 305 (port replicators) include a bridge 415 (information handling system connector), a switch interface 409 (communication port) and internal transmission lines connecting these components as shown in Figure 4.

*Hinson* does not teach "a plurality of inductive devices coupled to the board-mounted transmission lines of the port replicator".

However, *Willer* teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

Regarding claim 7, *Hinson* further teaches CIMs 305 (port replicator) of Figures 3 and 4 that are coupled to the switch 303 via transmission lines and provide a connection between the packet switched router 203 (information handling system) and downstream network connections (add-on devices) as spoken of on column 12, lines 9-25.

Regarding claims 8 and 20, *Hinson* further teaches where the PSR 203 of Figure 3 is compatible with the 802.3 Ethernet standard as spoken of on column 11, lines 54-65 as well as column 13, lines 10-14.

*Willer* further teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.



At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

Regarding claims **13 and 14**, *Hinson* further teaches CIMs 305 (port replicator) of Figures 3 and 4 that are coupled to the switch 303 via transmission lines and provide a connection between the packet switched router 203 (information handling system) and downstream network connections (add-on devices) as spoken of on column 12, lines 9-25.

*Willer* further teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

Regarding claim **15**, *Hinson* further teaches that packet switching router 203 of Figure 3 supports Gigabit Ethernet communications as spoken of on column 11, lines 54-65.

*Willer* further teaches a communication system in Figure 3 where a plurality of inductive devices are coupled to telephony wire lines and where inductors are selected to insure that the impedance encountered by the two wire bus lines 20c and 20d match the input impedance of the analog terminal ends 19 in order to minimize capacitance and reflections as spoken of on column 5, lines 50-64.

At the time of the invention, it would have been obvious to someone of ordinary skill in the art, given these references, to include inductive devices as taught in *Willer* to tune the electrical characteristics of the transmission line system of *Hinson* in order to prevent adverse electrical effects that damage communication via transmission lines of a network as spoken of on column 2, lines 16-34 of *Willer*.

#### ***Response to Arguments***

4. Applicant's arguments with respect to *amended* claims **1-15, 19, and 20** have been considered but are moot in view of the new ground(s) of rejection provided above.

#### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL J. MOORE, JR., whose telephone number is (571)272-3168. The examiner can normally be reached on Monday-Friday (7:30am - 4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan A. Phillips can be reached at (571) 272-3940. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J. Moore, Jr./  
Primary Examiner, Art Unit 2467